BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

ADAMS County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons
46	46.859	50.940	LINCOLN County, Washington	EAST KEYSTONE, WA	M0	East	25.0383	4.081	114,109
						West	66.1719	4.081	301,569
	50.940	52.740	EAST KEYSTONE, WA	WEST KEYSTONE, WA	M0	East	25.0378	1.800	50,323
						West	66.1722	1.800	132,998
	52.740	57.808	WEST KEYSTONE, WA	EAST TOKIO, WA	M0	East	25.0028	5.068	141,488
						West	66.1213	5.068	374,174
	57.808	59.493	EAST TOKIO, WA	WEST TOKIO, WA	M0	East	24.9001	1.685	46,849
						West	65.9720	1.685	124,124
	59.493	68.300	WEST TOKIO, WA	EAST ESSIG, WA	M0	East	24.9780	8.807	245,630
						West	66.3109	8.807	652,091
	68.300	70.300	EAST ESSIG, WA	WEST ESSIG, WA	M0	East	25.0170	2.000	55,868
						West	66.4989	2.000	148,505
	70.300	72.527	WEST ESSIG, WA	EAST PAHA, WA	M0	East	25.0170	2.227	62,209
						West	66.4989	2.227	165,360
	72.527	74.214	EAST PAHA, WA	WEST PAHA, WA	M0	East	25.0170	1.687	47,124
						West	66.4992	1.687	125,264
	74.214	84.907	WEST PAHA, WA	SAND, WA	M0	East	24.9980	10.693	298,470
						West	66.4800	10.693	793,754
	84.907	90.760	SAND, WA	BEATRICE, WA	M1	East	12.4744	5.853	81,526
						West	33.2026	5.853	216,993
	84.907	90.760	SAND, WA	BEATRICE, WA	M2	East	12.4744	5.853	81,526
						West	33.2026	5.853	216,993
	90.760	99.448	BEATRICE, WA	CUNNINGHAM, WA	M1	East	12.4746	8.688	121,016
						West	33.2038	8.688	322,109
	90.760	99.448	BEATRICE, WA	CUNNINGHAM, WA	M2	East	12.4746	8.688	121,016
						West	33.2038	8.688	322,109
	99.448	104.367	CUNNINGHAM, WA	FRANKLIN County, Washington	M0	East	24.9517	4.919	137,049
						West	66.4179	4.919	364,806

ADAMS County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES		YARD LOCOMOTIVES* = 0		TOTAL
	EPA Emission Factor g/gal	Emissions in Tons/Year	EPA Emission Factor g/gal	Emissions in Tons/Year	**Emissions in Tons/Year**
Hydrocarbon	7.7	49.77	14	0.00	49.77
Carbon Monoxide	26.6	171.92	27.82	0.00	171.92
Nitrogen Oxides	149	963.03	235	0.00	963.03
Particulates	4.4	28.44	5.3	0.00	28.44
Sulfur Dioxide	0.8	5.17	0.8	0.00	5.17

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

BENTON County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons
47	164.882	169.258	KLICKITAT County, Washington	EAST MCCREDIE, WA	M0	East	24.4492	4.376	119,460
						West	65.1853	4.376	318,497
	169.258	171.124	EAST WHITCOMB, WA	WEST WHITCOMB, WA	M0	East	24.4460	1.866	50,935
						West	65.1854	1.866	135,818
	171.124	179.069	WEST PATERSON, WA	EAST WHITCOMB, WA	M0	East	24.4410	7.945	216,825
						West	65.1858	7.945	578,286
	179.069	180.543	EAST PATERSON, WA	WEST PATERSON, WA	M0	East	24.4410	1.474	40,226
						West	65.1886	1.474	107,291
	180.543	190.884	WEST PLYMOUTH, WA	EAST PATERSON, WA	M0	East	24.4410	10.341	282,213
						West	65.1914	10.341	752,746
	190.884	192.767	EAST PLYMOUTH, WA	WEST PLYMOUTH, WA	M0	East	24.4784	1.883	51,467
						West	65.2650	1.883	137,223
	192.767	202.514	WEST BERRIAN, WA	EAST PLYMOUTH, WA	M0	East	24.5329	9.747	267,003
						West	65.3721	9.747	711,474
	202.514	203.957	EAST BERRIAN, WA	WEST BERRIAN, WA	M0	East	24.5329	1.443	39,529
						West	65.3719	1.443	105,330
	203.957	215.077	WEST YELLEPIT, WA	EAST BERRIAN, WA	M0	East	24.5329	11.120	304,614
						West	65.3718	11.120	811,691
	215.077	216.983	EAST YELLEPIT, WA	WEST YELLEPIT, WA	M0	East	24.5301	1.906	52,206
						West	65.4006	1.906	139,188
	216.983	227.661	WEST HOVER, WA	EAST YELLEPIT, WA	M0	East	24.6234	10.678	293,585
						West	65.5019	10.678	780,979
	227.661	229.280	EAST HOVER, WA	WEST HOVER, WA	M0	East	24.8003	1.619	44,833
						West	65.6427	1.619	118,667
	229.280	229.666	SP&S JCT, WA	END SUB, WA	M0	East	24.8025	0.386	10,690
						West	65.6288	0.386	28,286
48	1.881	7.130	EAST KENNEWICK, WA	EAST VISTA, WA	M0	East	2.4934	5.249	14,614
						West	2.8823	5.249	16,893
	7.130	16.800	EAST VISTA, WA	BADGER, WA	M0	East	2.4737	9.670	26,710
						West	2.8491	9.670	30,763
	16.800	22.260	BADGER, WA	EAST KIONA, WA	M0	East	2.4730	5.460	15,077
						West	2.8486	5.460	17,367

22.260	24.030	EAST KIONA, WA	WEST KIONA, WA	M0	East	2.4730	1.770	4,888
					West	2.8486	1.770	5,630
24.030	33.520	WEST KIONA, WA	EAST GIBBON, WA	M0	East	2.4755	9.490	26,232
					West	2.8499	9.490	30,199
33.520	40.480	EAST GIBBON, WA	EAST PROSSER, WA	M0	East	2.2586	6.960	17,553
					West	2.4840	6.960	19,304
40.480	41.310	EAST PROSSER, WA	WEST BYRON, WA	M0	East	2.2272	0.830	2,064
					West	2.4238	0.830	2,246
41.310	44.210	WEST BYRON, WA	EAST BYRON, WA	M0	East	2.2272	2.900	7,212
					West	2.4237	2.900	7,848
44.210	45.427	EAST BYRON, WA	YAKIMA County, Washington	M0	East	2.2272	1.217	3,027
					West	2.4121	1.217	3,278

BENTON County, Washington **Estimated 2011 Line Haul Locomotive Fuel Consumption in Gallons** **6,749,964**

Estimated 2011 Main Line Mileage **108.3**

BENTON County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES		YARD LOCOMOTIVES* = 0		TOTAL
	EPA Emission Factor g/gal	Emissions in Tons/Year	EPA Emission Factor g/gal	Emissions in Tons/Year	**Emissions in Tons/Year**
Hydrocarbon	7.7	57.28	14	0.00	57.28
Carbon Monoxide	26.6	197.86	27.82	0.00	197.86
Nitrogen Oxides	149	1108.33	235	0.00	1108.33
Particulates	4.4	32.73	5.3	0.00	32.73
Sulfur Dioxide	0.8	5.95	0.8	0.00	5.95

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

CHELAN County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons
37	1641.091	1642.736	DOUGLAS County, Washington	EAST MALAGA, WA	M0	East	14.6555	1.645	26,924
						West	14.1335	1.645	25,965
	1642.736	1644.610	EAST MALAGA, WA	WEST MALAGA, WA	M0	East	14.6609	1.874	30,678
						West	14.1389	1.874	29,586
	1644.610	1650.199	WEST MALAGA, WA	END SUB, WA	M0	East	14.6636	5.589	91,510
						West	14.1419	5.589	88,255
	1650.199	1650.200	BEGIN SUB, WA	WENATCHEE, WA	M0	East	14.6636	0.001	16
						West	14.1419	0.001	16
	1650.200	1652.825	WENATCHEE, WA	OLDS JCT, WA	M1	East	7.3180	2.625	21,450
						West	7.1953	2.625	21,090
	1650.200	1652.825	WENATCHEE, WA	OLDS JCT, WA	M2	East	7.3180	2.625	21,450
						West	7.1953	2.625	21,090
	1652.825	1659.305	OLDS JCT, WA	EAST CASHMERE, WA	M0	East	14.6360	6.480	105,899
						West	14.3907	6.480	104,124
	1659.305	1661.179	EAST CASHMERE, WA	WEST CASHMERE, WA	M0	East	14.6360	1.874	30,626
						West	14.3907	1.874	30,113
	1661.179	1671.358	WEST CASHMERE, WA	EAST LEAVENWORTH, WA	M0	East	14.6348	10.179	166,336
						West	14.3905	10.179	163,560
	1671.358	1673.002	EAST LEAVENWORTH, WA	WEST LEAVENWORTH, WA	M0	East	14.6362	1.644	26,867
						West	14.3918	1.644	26,419
	1673.002	1685.754	WEST LEAVENWORTH, WA	EAST WINTON, WA	M0	East	14.6383	12.752	208,432
						West	14.3936	12.752	204,948
	1685.754	1687.976	EAST WINTON, WA	WEST WINTON, WA	M0	East	14.6403	2.222	36,324
						West	14.3953	2.222	35,716
	1687.976	1691.717	WEST WINTON, WA	EAST MERRITT, WA	M0	East	14.6404	3.741	61,156
						West	14.3954	3.741	60,132
	1691.717	1693.134	EAST MERRITT, WA	WEST MERRITT, WA	M0	East	14.6365	1.417	23,158
						West	14.3910	1.417	22,770
	1693.134	1697.308	WEST MERRITT, WA	EAST BERNE, WA	M0	East	14.6327	4.174	68,198
						West	14.3868	4.174	67,052
	1697.308	1699.561	EAST BERNE, WA	WEST BERNE, WA	M0	East	14.6326	2.253	36,811
						West	14.3864	2.253	36,192
	1699.561	1704.631	WEST BERNE, WA	KING County, Washington	M0	East	14.6323	5.070	82,836
						West	14.3812	5.070	81,415

CHELAN County, Washington **Estimated 2011 Line Haul Locomotive Fuel Consumption in Gallons** **2,057,112**

Estimated 2011 Main Line Mileage **63.5**

CHELAN County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES		YARD LOCOMOTIVES* = 1		TOTAL
	EPA Emission Factor g/gal	Emissions in Tons/Year	EPA Emission Factor g/gal	Emissions in Tons/Year	**Emissions in Tons/Year**
Hydrocarbon	7.7	17.46	14	0.77	18.23
Carbon Monoxide	26.6	60.30	27.82	1.53	61.83
Nitrogen Oxides	149	337.77	235	12.95	350.72
Particulates	4.4	9.97	5.3	0.29	10.27
Sulfur Dioxide	0.8	1.81	0.8	0.04	1.86

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

CLARK County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons
47	9.598	9.817	MULTNOMAH County, Oregon	N PORTLAND JCT, WA	M1	East	4.4295	0.219	1,082
						West	6.7239	0.219	1,643
	9.598	9.817	MULTNOMAH County, Oregon	N PORTLAND JCT, WA	M2	East	4.4295	0.219	1,082
						West	6.7239	0.219	1,643
	9.817	10.710	8TH STREET, WA	COLUMBIA RIVER BRIDGE, WA	M1	East	12.4179	0.893	12,382
						West	28.7781	0.893	28,695
	9.817	10.710	8TH STREET, WA	COLUMBIA RIVER BRIDGE, WA	M2	East	12.4179	0.893	12,382
						West	28.7781	0.893	28,695
	10.710	12.660	EAVAN, WA	8TH STREET, WA	M1	East	13.5567	1.950	29,518
						West	31.9480	1.950	69,562
	10.710	12.660	EAVAN, WA	8TH STREET, WA	M2	East	13.5567	1.950	29,518
						West	31.9480	1.950	69,562
	12.660	14.894	MCLOUGHLIN, WA	EAVAN, WA	M1	East	13.5602	2.234	33,826
						West	31.9508	2.234	79,700
	12.660	14.894	MCLOUGHLIN, WA	EAVAN, WA	M2	East	13.5602	2.234	33,826
						West	31.9508	2.234	79,700
	14.894	27.738	WEST WASHOUGAL, WA	MCLOUGHLIN, WA	M0	East	27.1314	12.844	389,106
						West	63.9124	12.844	916,602
	27.738	29.847	EAST WASHOUGAL, WA	WEST WASHOUGAL, WA	M0	East	27.0887	2.109	63,791
						West	63.9209	2.109	150,527
	29.847	32.217	WEST SKAMANIA, WA	SKAMANIA County, Washington	M0	East	27.0545	2.370	71,591
						West	63.8794	2.370	169,035
52	119.179	123.673	COWLITZ County, Washington	RIDGEFIELD S, WA	M1	East	11.0039	4.494	55,222
						West	25.0407	4.494	125,665
	119.179	123.673	COWLITZ County, Washington	RIDGEFIELD S, WA	M2	East	11.0039	4.494	55,222
						West	25.0407	4.494	125,665
	123.673	130.674	RIDGEFIELD S, WA	FELIDA, WA	M1	East	10.8676	7.001	84,955
						West	24.9331	7.001	194,909
	123.673	130.674	RIDGEFIELD S, WA	FELIDA, WA	M2	East	10.8676	7.001	84,955
						West	24.9331	7.001	194,909
	130.674	132.488	FELIDA, WA	VANCOUVER JCT NORTH, WA	M1	East	10.8676	1.814	22,012
						West	24.9331	1.814	50,502

130.674	132.488	FELIDA, WA	VANCOUVER JCT NORTH, WA	M2	East	10.8676	1.814	22,012
					West	24.9331	1.814	50,502
132.488	133.500	VANCOUVER JCT NORTH, WA	FRUIT VALLEY, WA	M1	East	10.8867	1.012	12,302
					West	24.9344	1.012	28,176
132.488	133.500	VANCOUVER JCT NORTH, WA	FRUIT VALLEY, WA	M2	East	10.8867	1.012	12,302
					West	24.9344	1.012	28,176
133.500	135.100	FRUIT VALLEY, WA	39TH STREET, WA	M1	East	10.9012	1.600	19,476
					West	24.9672	1.600	44,605
133.500	135.100	FRUIT VALLEY, WA	39TH STREET, WA	M2	East	10.9012	1.600	19,476
					West	24.9672	1.600	44,605
135.100	136.085	39TH STREET, WA	VANCOUVER, WA	M1	East	10.9012	0.985	11,990
					West	24.9672	0.985	27,460
135.100	136.085	39TH STREET, WA	VANCOUVER, WA	M2	East	10.9012	0.985	11,990
					West	24.9672	0.985	27,460
136.085	136.251	VANCOUVER, WA	END STATE, WA	M1	East	10.9012	0.166	2,021
					West	24.9672	0.166	4,628
136.085	136.251	VANCOUVER, WA	END STATE, WA	M2	East	10.9012	0.166	2,021
					West	24.9672	0.166	4,628

CLARK County, Washington **Estimated 2011 Line Haul Locomotive Fuel Consumption in Gallons** **3,641,314**

Estimated 2011 Main Line Mileage **39.7**

CLARK County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES EPA Emission Factor g/gal	LINE HAUL LOCOMOTIVES Emissions in Tons/Year	YARD LOCOMOTIVES* = 11 EPA Emission Factor g/gal	YARD LOCOMOTIVES* = 11 Emissions in Tons/Year	TOTAL **Emissions in Tons/Year**
Hydrocarbon	7.7	30.90	14	8.49	39.38
Carbon Monoxide	26.6	106.74	27.82	16.86	123.60
Nitrogen Oxides	149	597.90	235	142.43	740.33
Particulates	4.4	17.66	5.3	3.21	20.87
Sulfur Dioxide	0.8	3.21	0.8	0.48	3.70

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

COWLITZ County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons
52	79.006	85.004	LEWIS County, Washington	MP 85, WA	M1	East	9.7303	5.998	65,164
						West	19.3854	5.998	129,825
	79.006	85.004	LEWIS County, Washington	MP 85, WA	M2	East	9.7303	5.998	65,164
						West	19.3854	5.998	129,825
	85.004	93.398	MP 85, WA	OSTRANDER, WA	M1	East	9.7307	8.394	91,203
						West	19.3852	8.394	181,692
	85.004	93.398	MP 85, WA	OSTRANDER, WA	M2	East	9.7307	8.394	91,203
						West	19.3852	8.394	181,692
	93.398	98.930	OSTRANDER, WA	KELSO SOUTH, WA	M1	East	10.0876	5.532	62,311
						West	19.7453	5.532	121,967
	93.398	98.930	OSTRANDER, WA	KELSO SOUTH, WA	M2	East	10.0876	5.532	62,311
						West	19.7453	5.532	121,967
	98.930	102.535	KELSO SOUTH, WA	LONGVIEW JCT S, WA	M1	East	10.4901	3.605	42,226
						West	20.5080	3.605	82,551
	98.930	102.535	KELSO SOUTH, WA	LONGVIEW JCT S, WA	M2	East	10.4901	3.605	42,226
						West	20.5080	3.605	82,551
	102.535	110.788	LONGVIEW JCT S, WA	MP 111, WA	M1	East	10.8284	8.253	99,786
						West	22.5307	8.253	207,626
	102.535	110.788	LONGVIEW JCT S, WA	MP 111, WA	M2	East	10.8284	8.253	99,786
						West	22.5307	8.253	207,626
	110.788	116.578	MP 111, WA	WOODLAND, WA	M1	East	11.2119	5.790	72,486
						West	25.1299	5.790	162,467
	110.788	116.578	MP 111, WA	WOODLAND, WA	M2	East	11.2119	5.790	72,486
						West	25.1299	5.790	162,467
	116.578	119.179	WOODLAND, WA	CLARK County, Washington	M1	East	11.0039	2.601	31,953
						West	25.0407	2.601	72,714
	116.578	119.179	WOODLAND, WA	CLARK County, Washington	M2	East	11.0039	2.601	31,953
						West	25.0407	2.601	72,714

COWLITZ County, Washington **Estimated 2011 Line Haul Locomotive Fuel Consumption in Gallons** **2,847,943**

Estimated 2011 Main Line Mileage **40.2**

COWLITZ County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES		YARD LOCOMOTIVES* = 4		TOTAL
	EPA Emission Factor g/gal	Emissions in Tons/Year	EPA Emission Factor g/gal	Emissions in Tons/Year	**Emissions in Tons/Year**
Hydrocarbon	7.7	24.17	14	3.09	27.25
Carbon Monoxide	26.6	83.48	27.82	6.13	89.61
Nitrogen Oxides	149	467.63	235	51.79	519.42
Particulates	4.4	13.81	5.3	1.17	14.98
Sulfur Dioxide	0.8	2.51	0.8	0.18	2.69

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

DOUGLAS County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons
37	1626.836	1627.046	GRANT County, Washington	WEST TRINIDAD, WA	M0	East	14.6409	0.210	3,429
						West	14.1098	0.210	3,305
	1627.046	1634.140	WEST TRINIDAD, WA	EAST ALBUS, WA	M0	East	14.6410	7.094	115,973
						West	14.1099	7.094	111,766
	1634.140	1635.874	EAST ALBUS, WA	WEST ALBUS, WA	M0	East	14.6538	1.734	28,372
						West	14.1307	1.734	27,360
	1635.874	1641.091	WEST ALBUS, WA	CHELAN County, Washington	M0	East	14.6555	5.217	85,368
						West	14.1335	5.217	82,327

DOUGLAS County, Washington **Estimated 2011 Line Haul Locomotive Fuel Consumption in Gallons** **457,900**

Estimated 2011 Main Line Mileage **14.3**

DOUGLAS County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES		YARD LOCOMOTIVES* = 6		TOTAL
	EPA Emission Factor g/gal	Emissions in Tons/Year	EPA Emission Factor g/gal	Emissions in Tons/Year	**Emissions in Tons/Year**
Hydrocarbon	7.7	3.89	14	4.63	8.51
Carbon Monoxide	26.6	13.42	27.82	9.20	22.62
Nitrogen Oxides	149	75.19	235	77.69	152.88
Particulates	4.4	2.22	5.3	1.75	3.97
Sulfur Dioxide	0.8	0.40	0.8	0.26	0.67

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

FERRY County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons
377	4.759	8.442	STEVENS County, Washington	STEVENS County, Washington	M1	East	0.0000	3.684	0
						West	0.0000	3.684	0

FERRY County, Washington **Estimated 2011 Line Haul Locomotive Fuel Consumption in Gallons** **0**

Estimated 2011 Main Line Mileage **3.7**

FERRY County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES EPA Emission Factor g/gal	LINE HAUL LOCOMOTIVES Emissions in Tons/Year	YARD LOCOMOTIVES* = 0 EPA Emission Factor g/gal	YARD LOCOMOTIVES* = 0 Emissions in Tons/Year	TOTAL **Emissions in Tons/Year**
Hydrocarbon	7.7	0.00	14	0.00	0.00
Carbon Monoxide	26.6	0.00	27.82	0.00	0.00
Nitrogen Oxides	149	0.00	235	0.00	0.00
Particulates	4.4	0.00	5.3	0.00	0.00
Sulfur Dioxide	0.8	0.00	0.8	0.00	0.00

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

FRANKLIN County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons
46	104.367	108.251	ADAMS County, Washington	EAST CONNELL, WA	M0	East	24.9517	3.884	108,210
						West	66.4179	3.884	288,041
	108.251	109.937	EAST CONNELL, WA	WEST CONNELL, WA	M0	East	24.9517	1.686	46,974
						West	66.4179	1.686	125,037
	109.937	114.948	WEST CONNELL, WA	EAST CACTUS, WA	M0	East	25.7005	5.011	143,801
						West	67.1395	5.011	375,663
	114.948	116.633	EAST CACTUS, WA	WEST CACTUS, WA	M0	East	25.7202	1.685	48,392
						West	67.1601	1.685	126,359
	116.633	126.391	WEST CACTUS, WA	EAST ELTOPIA, WA	M0	East	25.7253	9.758	280,296
						West	67.1573	9.758	731,728
	126.391	128.076	EAST ELTOPIA, WA	WEST ELTOPIA, WA	M0	East	25.7274	1.685	48,405
						West	67.1557	1.685	126,351
	128.076	137.015	WEST ELTOPIA, WA	GLADE, WA	M0	East	25.7368	8.939	256,885
						West	67.1555	8.939	670,295
	137.020	140.300	GLADE, WA	PASCO EAST, WA	M1	East	12.9217	3.280	47,325
						West	33.6030	3.280	123,069
	137.020	140.300	GLADE, WA	PASCO EAST, WA	M2	East	12.9217	3.280	47,325
						West	33.6030	3.280	123,069
	140.300	142.100	PASCO EAST, WA	COUGAR, WA	M1	East	12.9217	1.800	25,971
						West	33.6030	1.800	67,538
	140.300	142.100	PASCO EAST, WA	COUGAR, WA	M2	East	12.9217	1.800	25,971
						West	33.6030	1.800	67,538
	142.100	142.700	COUGAR, WA	HUSKY, WA	M1	East	12.9217	0.600	8,657
						West	33.6030	0.600	22,513
	142.100	142.700	COUGAR, WA	HUSKY, WA	M2	East	12.9217	0.600	8,657
						West	33.6030	0.600	22,513
	142.700	145.302	HUSKY, WA	GRAPEVINE, WA	M1	East	12.9217	2.602	37,542
						West	33.6030	2.602	97,629
	142.700	145.302	HUSKY, WA	GRAPEVINE, WA	M2	East	12.9217	2.602	37,542
						West	33.6030	2.602	97,629
	145.302	145.900	GRAPEVINE, WA	PASCO WEST, WA	M1	East	12.9217	0.598	8,628
						West	33.6030	0.598	22,438
	145.302	145.590	GRAPEVINE, WA	PASCO, WA	M2	East	12.9217	0.288	4,155
						West	33.6030	0.288	10,806

FRANKLIN County, Washington **Estimated 2011 Line Haul Locomotive Fuel Consumption in Gallons** **4,282,951**

Estimated 2011 Main Line Mileage **41.8**

FRANKLIN County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES		YARD LOCOMOTIVES* = 12		TOTAL
	EPA Emission Factor g/gal	Emissions in Tons/Year	EPA Emission Factor g/gal	Emissions in Tons/Year	**Emissions in Tons/Year**
Hydrocarbon	7.7	36.34	14	9.26	45.60
Carbon Monoxide	26.6	125.55	27.82	18.39	143.94
Nitrogen Oxides	149	703.25	235	155.38	858.63
Particulates	4.4	20.77	5.3	3.50	24.27
Sulfur Dioxide	0.8	3.78	0.8	0.53	4.30

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

GRANT County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons
37	1568.952	1576.070	LINCOLN County, Washington	EAST WILSON CREEK, WA	M0	East	14.0980	7.118	112,046
						West	13.6774	7.118	108,703
	1576.070	1577.890	EAST WILSON CREEK, WA	WEST WILSON CREEK, WA	M0	East	14.1103	1.820	28,675
						West	13.6848	1.820	27,810
	1577.890	1587.732	WEST WILSON CREEK, WA	EAST ADRIAN, WA	M0	East	14.1107	9.842	155,070
						West	13.6850	9.842	150,392
	1587.732	1589.900	EAST ADRIAN, WA	WEST ADRIAN, WA	M0	East	14.1100	2.168	34,157
						West	13.6837	2.168	33,125
	1589.900	1602.785	WEST ADRIAN, WA	EAST NAYLOR, WA	M0	East	14.3628	12.885	206,642
						West	13.8626	12.885	199,446
	1602.785	1604.854	EAST NAYLOR, WA	WEST NAYLOR, WA	M0	East	14.4720	2.069	33,434
						West	13.9366	2.069	32,197
	1604.854	1614.562	WEST NAYLOR, WA	EAST QUINCY, WA	M0	East	14.6050	9.708	158,317
						West	14.0196	9.708	151,971
	1614.562	1618.894	EAST QUINCY, WA	WEST QUINCY, WA	M0	East	14.6332	4.332	70,782
						West	14.0908	4.332	68,158
	1618.894	1625.507	WEST QUINCY, WA	EAST TRINIDAD, WA	M0	East	14.6409	6.613	108,109
						West	14.1098	6.613	104,187
	1625.507	1626.836	EAST TRINIDAD, WA	DOUGLAS County, Washington	M0	East	14.6409	1.329	21,731
						West	14.1098	1.329	20,942

GRANT County, Washington **Estimated 2011 Line Haul Locomotive Fuel Consumption in Gallons** **1,825,894**

Estimated 2011 Main Line Mileage **57.9**

GRANT County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES		YARD LOCOMOTIVES* = 0		TOTAL
	EPA Emission Factor g/gal	Emissions in Tons/Year	EPA Emission Factor g/gal	Emissions in Tons/Year	**Emissions in Tons/Year**
Hydrocarbon	7.7	15.49	14	0.00	15.49
Carbon Monoxide	26.6	53.52	27.82	0.00	53.52
Nitrogen Oxides	149	299.81	235	0.00	299.81
Particulates	4.4	8.85	5.3	0.00	8.85
Sulfur Dioxide	0.8	1.61	0.8	0.00	1.61

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

GRAYS HARBOR County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons

GRAYS HARBOR County, Washington **Estimated 2011 Line Haul Locomotive Fuel Consumption in Gallons** **0**

Estimated 2011 Main Line Mileage **0.0**

GRAYS HARBOR County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES EPA Emission Factor g/gal	LINE HAUL LOCOMOTIVES Emissions in Tons/Year	YARD LOCOMOTIVES* = 0 EPA Emission Factor g/gal	YARD LOCOMOTIVES* = 0 Emissions in Tons/Year	TOTAL **Emissions in Tons/Year**
Hydrocarbon	7.7	0.00	14	0.00	0.00
Carbon Monoxide	26.6	0.00	27.82	0.00	0.00
Nitrogen Oxides	149	0.00	235	0.00	0.00
Particulates	4.4	0.00	5.3	0.00	0.00
Sulfur Dioxide	0.8	0.00	0.8	0.00	0.00

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

KING County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons
37	1704.631	1708.323	CHELAN County, Washington	EAST SCENIC, WA	M0	East	14.6323	3.692	60,320
						West	14.3812	3.692	59,285
	1708.323	1721.184	EAST SCENIC, WA	WEST SCENIC, WA	M0	East	14.6304	12.861	210,100
						West	14.3810	12.861	206,519
	1721.184	1730.709	WEST SCENIC, WA	EAST SKYKOMISH, WA	M0	East	14.6302	9.525	155,600
						West	14.3810	9.525	152,950
	1730.709	1732.529	EAST SKYKOMISH, WA	WEST SKYKOMISH, WA	M0	East	14.6472	1.820	29,766
						West	14.3990	1.820	29,262
	1732.529	1738.511	WEST SKYKOMISH, WA	EAST BARING, WA	M0	East	14.7373	5.982	98,437
						West	14.4944	5.982	96,815
	1738.511	1740.317	EAST BARING, WA	SNOHOMISH County, Washington	M0	East	14.7373	1.806	29,714
						West	14.4945	1.806	29,224
49	47.529	48.840	KITTITAS County, Washington	EAST STAMPEDE, WA	M0	East	2.0359	1.311	2,980
						West	2.0536	1.311	3,005
	48.840	49.160	EAST STAMPEDE, WA	WEST STAMPEDE, WA	M0	East	2.0359	0.320	727
						West	2.0536	0.320	734
	49.160	59.040	WEST STAMPEDE, WA	EAST LESTER, WA	M0	East	2.0359	9.880	22,460
						West	2.0536	9.880	22,655
	59.040	60.510	EAST LESTER, WA	WEST LESTER, WA	M0	East	2.0338	1.470	3,338
						West	2.0536	1.470	3,371
	60.510	81.060	WEST LESTER, WA	PALMER JCT, WA	M0	East	2.0323	20.550	46,633
						West	2.0536	20.550	47,122
	81.060	81.940	PALMER JCT, WA	EAST KANASKAT, WA	M0	East	2.0323	0.880	1,997
						West	2.0536	0.880	2,018
	81.940	83.860	EAST KANASKAT, WA	WEST KANASKAT, WA	M0	East	2.0354	1.920	4,364
						West	2.0548	1.920	4,405
	83.860	87.530	WEST KANASKAT, WA	EAST RAVENSDALE, WA	M0	East	2.0362	3.670	8,344
						West	2.0551	3.670	8,422
	87.530	88.820	EAST RAVENSDALE, WA	WEST RAVENSDALE, WA	M0	East	2.0362	1.290	2,933
						West	2.0551	1.290	2,960
	88.820	93.790	WEST RAVENSDALE, WA	EAST COVINGTON, WA	M0	East	2.0362	4.970	11,300
						West	2.0551	4.970	11,405

	93.790	95.060	EAST COVINGTON, WA	WEST COVINGTON, WA	M0	East	2.0362	1.270	2,887
						West	2.0556	1.270	2,915
	95.060	100.600	WEST COVINGTON, WA	MP 100.6, WA	M0	East	2.0362	5.540	12,596
						West	2.0568	5.540	12,723
	100.600	101.290	MP 100.6, WA	EAST EAST AUBURN, WA	M0	East	2.0362	0.690	1,569
						West	2.0568	0.690	1,585
	101.290	102.290	EAST EAST AUBURN, WA	WEST EAST AUBURN, WA	M0	East	2.0362	1.000	2,274
						West	2.0568	1.000	2,297
	102.290	102.855	WEST EAST AUBURN, WA	END STATE, WA	M0	East	2.0362	0.565	1,285
						West	2.0568	0.565	1,298
50	0.145	1.665	NORTH PORTAL, WA	SOUTH PORTAL, WA	M1	East	16.3749	1.520	27,792
						West	11.9339	1.520	20,255
	0.145	1.665	NORTH PORTAL, WA	SOUTH PORTAL, WA	M2	East	16.3749	1.520	27,792
						West	11.9339	1.520	20,255
	1.665	3.420	GALER STREET, WA	NORTH PORTAL, WA	M1	East	16.3749	1.755	32,089
						West	11.9339	1.755	23,386
	1.665	3.420	GALER STREET, WA	NORTH PORTAL, WA	M2	East	16.3749	1.755	32,089
						West	11.9339	1.755	23,386
	3.420	4.341	MAGNOLIA, WA	GALER STREET, WA	M1	East	16.3749	0.921	16,840
						West	11.9339	0.921	12,273
	3.420	4.341	MAGNOLIA, WA	GALER STREET, WA	M2	East	16.3749	0.921	16,840
						West	11.9339	0.921	12,273
	4.341	5.000	23RD AVE INTERB, WA	MAGNOLIA, WA	M1	East	16.1230	0.659	11,864
						West	11.9602	0.659	8,801
	4.341	5.000	23RD AVE INTERB, WA	MAGNOLIA, WA	M2	East	16.1230	0.659	11,864
						West	11.9602	0.659	8,801
	5.000	6.200	BALLARD BRIDGE, WA	23RD AVE INTERB, WA	M1	East	13.6092	1.200	18,235
						West	12.2233	1.200	16,378
	5.000	6.200	BALLARD BRIDGE, WA	23RD AVE INTERB, WA	M2	East	13.6092	1.200	18,235
						West	12.2233	1.200	16,378
	5.415	7.389	MP 7, WA	MP 5.4, WA	M1	East	13.6087	1.974	29,996
						West	12.2231	1.974	26,942
	5.415	7.389	MP 7, WA	MP 5.4, WA	M2	East	13.6087	1.974	29,996
						West	12.2231	1.974	26,942
	6.200	9.100	BLUE RIDGE, WA	BALLARD BRIDGE, WA	M1	East	13.6024	2.900	44,046
						West	12.2215	2.900	39,575
	6.200	9.100	BLUE RIDGE, WA	BALLARD BRIDGE, WA	M2	East	13.6024	2.900	44,046
						West	12.2215	2.900	39,575
	7.389	7.727	MP 8, WA	MP 7, WA	M1	East	13.5983	0.338	5,132
						West	12.2205	0.338	4,612

	9.100	15.007	MP 16 EDMONDS, WA	SNOHOMISH County, Washington	M1	East	13.6013	5.907	89,716
						West	12.2263	5.907	80,647
	9.100	15.007	MP 16 EDMONDS, WA	SNOHOMISH County, Washington	M2	East	13.6013	5.907	89,716
						West	12.2263	5.907	80,647
51	0.000	0.300	SEATTLE, WA	KING STREET, WA	M1	East	12.1001	0.300	4,053
						West	16.5772	0.300	5,553
	0.000	0.300	SEATTLE, WA	KING STREET, WA	M2	East	12.1001	0.300	4,053
						West	16.5772	0.300	5,553
	0.300	0.600	KING STREET, WA	STADIUM, WA	M1	East	12.1001	0.300	4,053
						West	16.5772	0.300	5,553
	0.300	0.600	KING STREET, WA	STADIUM, WA	M2	East	12.1001	0.300	4,053
						West	16.5772	0.300	5,553
	0.600	2.070	STADIUM, WA	SPOKANE STREET, WA	M1	East	12.1001	1.470	19,861
						West	16.5772	1.470	27,210
	0.600	2.070	STADIUM, WA	SPOKANE STREET, WA	M2	East	12.1001	1.470	19,861
						West	16.5772	1.470	27,210
	2.070	3.200	SPOKANE STREET, WA	LUCILE, WA	M1	East	12.0947	1.130	15,261
						West	16.5657	1.130	20,902
	2.070	3.430	SPOKANE STREET, WA	ARGO, WA	M2	East	11.8804	1.360	18,041
						West	16.1983	1.360	24,598
	3.200	3.390	LUCILE, WA	ARGO, WA	M1	East	11.4938	0.190	2,438
						West	15.2793	0.190	3,242
	3.390	3.630	ARGO, WA	BAILEY, WA	M1	East	7.6625	0.240	2,053
						West	10.1862	0.240	2,730
	3.430	3.630	ARGO, WA	BAILEY, WA	M2	East	7.6625	0.200	1,711
						West	10.1862	0.200	2,275
	3.630	4.200	BAILEY, WA	GEORGETOWN, WA	M1	East	7.6625	0.570	4,877
						West	10.1862	0.570	6,483
	3.630	6.310	BAILEY, WA	RHODES, WA	M2	East	7.6625	2.680	22,930
						West	10.1862	2.680	30,482
	3.630	5.400	BAILEY, WA	VAN ASSELT, WA	M3	East	7.6625	1.770	15,144
						West	10.1862	1.770	20,132
	4.200	6.310	GEORGETOWN, WA	RHODES, WA	M1	East	7.6625	2.110	18,053
						West	10.1862	2.110	23,999
	5.400	6.310	VAN ASSELT, WA	RHODES, WA	M3	East	7.6625	0.910	7,786
						West	10.1862	0.910	10,350
	6.310	6.580	RHODES, WA	BOEING, WA	M1	East	7.6625	0.270	2,310
						West	10.1862	0.270	3,071
	6.310	6.580	RHODES, WA	BOEING, WA	M2	East	7.6625	0.270	2,310
						West	10.1862	0.270	3,071

6.310	6.580	RHODES, WA	BOEING, WA	M3	East	7.6625	0.270	2,310
					West	10.1862	0.270	3,071
6.580	7.900	BOEING, WA	SOUTH SEATTLE, WA	M1	East	7.6625	1.320	11,294
					West	10.1857	1.320	15,013
6.580	9.970	BOEING, WA	BLACK RIVER, WA	M2	East	7.0969	3.390	26,864
					West	9.6525	3.390	36,537
6.580	9.530	BOEING, WA	RENTON JCT, WA	M3	East	7.1592	2.950	23,582
					West	9.7070	2.950	31,974
7.900	9.970	SOUTH SEATTLE, WA	BLACK RIVER, WA	M1	East	6.7363	2.070	15,570
					West	9.3125	2.070	21,524
9.530	9.967	RENTON JCT, WA	BLACK RIVER, WA	M3	East	6.6569	0.437	3,248
					West	9.2560	0.437	4,516
9.970	10.260	BLACK RIVER, WA	CP TUKWILA, WA	M1	East	9.9854	0.290	3,233
					West	13.8840	0.290	4,496
9.970	10.260	BLACK RIVER, WA	CP TUKWILA, WA	M2	East	9.9854	0.290	3,233
					West	13.8840	0.290	4,496
10.260	11.320	CP TUKWILA, WA	GLACIER PARK, WA	M1	East	9.9854	1.060	11,819
					West	13.8840	1.060	16,433
10.260	11.320	CP TUKWILA, WA	GLACIER PARK, WA	M2	East	9.9854	1.060	11,819
					West	13.8840	1.060	16,433
11.320	16.900	GLACIER PARK, WA	WILLIS, WA	M1	East	9.9716	5.580	62,129
					West	13.8916	5.580	86,553
11.320	13.300	GLACIER PARK, WA	ORILLIA, WA	M2	East	9.9854	1.980	22,076
					West	13.8840	1.980	30,696
13.300	15.700	ORILLIA, WA	JAMES STREET, WA	M2	East	9.9854	2.400	26,759
					West	13.8840	2.400	37,207
15.700	16.900	JAMES STREET, WA	WILLIS, WA	M2	East	9.9214	1.200	13,294
					West	13.9197	1.200	18,651
16.900	20.970	WILLIS, WA	AUBURN NORTH, WA	M1	East	9.8895	4.070	44,943
					West	13.9376	4.070	63,340
16.900	20.970	WILLIS, WA	AUBURN NORTH, WA	M2	East	9.8895	4.070	44,943
					West	13.9376	4.070	63,340
20.970	24.070	AUBURN NORTH, WA	PACIFIC, WA	M1	East	10.0994	3.100	34,959
					West	14.4902	3.100	50,157
20.970	21.600	AUBURN NORTH, WA	RAINIER, WA	M2	East	9.9297	0.630	6,985
					West	14.0434	0.630	9,879
21.600	21.993	RAINIER, WA	AUBURN YARD, WA	M2	East	10.1428	0.393	4,451
					West	14.6042	0.393	6,409
21.993	23.840	AUBURN YARD, WA	ELLINGSON, WA	M2	East	10.1428	1.847	20,918
					West	14.6042	1.847	30,119
23.840	24.070	ELLINGSON, WA	PACIFIC, WA	M2	East	10.1428	0.230	2,605
					West	14.6042	0.230	3,751

	24.070	24.865	PACIFIC, WA	PIERCE County, Washington	M1	East	10.1433	0.795	9,006
						West	14.6027	0.795	12,966
	24.070	24.865	PACIFIC, WA	PIERCE County, Washington	M2	East	10.1433	0.795	9,006
						West	14.6027	0.795	12,966
410	9.500	12.080	BLACK RIVER, WA	EAST RENTON, WA	M0	East	0.2161	2.580	623
						West	0.1608	2.580	463

KING County, Washington	**Estimated 2011 Line Haul Locomotive Fuel Consumption in Gallons**	**3,811,475**
	Estimated 2011 Main Line Mileage	**158.0**

KING County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES		YARD LOCOMOTIVES* = 20		TOTAL
	EPA Emission Factor g/gal	Emissions in Tons/Year	EPA Emission Factor g/gal	Emissions in Tons/Year	**Emissions in Tons/Year**
Hydrocarbon	7.7	32.34	14	15.43	47.77
Carbon Monoxide	26.6	111.73	27.82	30.66	142.38
Nitrogen Oxides	149	625.84	235	258.97	884.81
Particulates	4.4	18.48	5.3	5.84	24.32
Sulfur Dioxide	0.8	3.36	0.8	0.88	4.24

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

KITSAP County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons

KITSAP County, Washington **Estimated 2011 Line Haul Locomotive Fuel Consumption in Gallons** **0**

Estimated 2011 Main Line Mileage **0.0**

KITSAP County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES EPA Emission Factor g/gal	LINE HAUL LOCOMOTIVES Emissions in Tons/Year	YARD LOCOMOTIVES* = 0 EPA Emission Factor g/gal	YARD LOCOMOTIVES* = 0 Emissions in Tons/Year	TOTAL **Emissions in Tons/Year**
Hydrocarbon	7.7	0.00	14	0.00	0.00
Carbon Monoxide	26.6	0.00	27.82	0.00	0.00
Nitrogen Oxides	149	0.00	235	0.00	0.00
Particulates	4.4	0.00	5.3	0.00	0.00
Sulfur Dioxide	0.8	0.00	0.8	0.00	0.00

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

KITTITAS County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons
48	101.310	109.540	YAKIMA County, Washington	EAST WYMER, WA	M0	East	1.8109	8.230	16,642
						West	1.8337	8.230	16,851
	109.540	121.190	EAST WYMER, WA	THRALL, WA	M0	East	1.8109	11.650	23,557
						West	1.8337	11.650	23,853
	121.190	126.230	THRALL, WA	END SUB, WA	M0	East	1.8109	5.040	10,191
						West	1.8337	5.040	10,319
	126.230	127.000	BEGIN SUB, WA	ELLENSBURG, WA	M0	East	1.8109	0.770	1,557
						West	1.8337	0.770	1,577
49	26.700	34.000	YAKIMA County, Washington	MP 34, WA	M0	East	2.0368	7.300	16,602
						West	2.0584	7.300	16,778
	34.000	36.914	MP 34, WA	EAST EASTON, WA	M0	East	2.0323	2.914	6,613
						West	2.0540	2.914	6,683
	36.914	41.060	EAST EASTON, WA	WEST EASTON, WA	M1	East	1.0173	4.146	4,709
						West	1.0268	4.146	4,753
	36.914	41.060	EAST EASTON, WA	WEST EASTON, WA	M2	East	1.0173	4.146	4,709
						West	1.0268	4.146	4,753
	41.060	45.970	WEST EASTON, WA	EAST MARTIN, WA	M0	East	2.0359	4.910	11,162
						West	2.0536	4.910	11,259
	45.970	46.470	EAST MARTIN, WA	WEST MARTIN, WA	M0	East	2.0359	0.500	1,137
						West	2.0536	0.500	1,147
	46.470	47.529	WEST MARTIN, WA	KING County, Washington	M0	East	2.0359	1.059	2,408
						West	2.0536	1.059	2,429

KITTITAS County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES		YARD LOCOMOTIVES* = 0		TOTAL
	EPA Emission Factor g/gal	Emissions in Tons/Year	EPA Emission Factor g/gal	Emissions in Tons/Year	**Emissions in Tons/Year**
Hydrocarbon	7.7	1.69	14	0.00	1.69
Carbon Monoxide	26.6	5.85	27.82	0.00	5.85
Nitrogen Oxides	149	32.79	235	0.00	32.79
Particulates	4.4	0.97	5.3	0.00	0.97
Sulfur Dioxide	0.8	0.18	0.8	0.00	0.18

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

KLICKITAT County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons
47	72.822	75.922	SKAMANIA County, Washington	EAST COOKS, WA	M0	East	27.0597	3.100	93,662
						West	63.8579	3.100	221,033
	75.922	78.220	EAST BINGEN, WA	WEST BINGEN, WA	M0	East	27.0590	2.298	69,432
						West	63.8531	2.298	163,843
	78.220	86.200	WEST LYLE, WA	EAST BINGEN, WA	M0	East	27.0590	7.980	241,107
						West	63.8531	7.980	568,958
	86.200	87.900	EAST LYLE, WA	WEST LYLE, WA	M0	East	27.0595	1.700	51,365
						West	63.8531	1.700	121,207
	87.900	91.870	WEST NORTH DALLES, WA	EAST LYLE, WA	M0	East	27.0602	3.970	119,955
						West	63.8532	3.970	283,054
	91.870	93.910	EAST NORTH DALLES, WA	WEST NORTH DALLES, WA	M0	East	27.0602	2.040	61,639
						West	63.8532	2.040	145,448
	93.910	102.380	AVERY END 2MT, WA	EAST NORTH DALLES, WA	M0	East	27.0639	8.470	255,958
						West	63.9126	8.470	604,457
	102.380	104.800	WEST WISHRAM, WA	AVERY END 2MT, WA	M1	East	13.5348	2.420	36,573
						West	31.9611	2.420	86,364
	102.380	104.800	WEST WISHRAM, WA	AVERY END 2MT, WA	M2	East	13.5348	2.420	36,573
						West	31.9611	2.420	86,364
	104.800	105.980	WISHRAM BEGIN 2MT, WA	WEST WISHRAM, WA	M1	East	13.5400	1.180	17,840
						West	31.9686	1.180	42,121
	104.800	105.980	WISHRAM BEGIN 2MT, WA	WEST WISHRAM, WA	M2	East	13.5400	1.180	17,840
						West	31.9686	1.180	42,121
	105.980	107.727	EAST WISHRAM, WA	WISHRAM BEGIN 2MT, WA	M0	East	27.4481	1.747	53,543
						West	66.2071	1.747	129,150
	107.727	112.837	WEST MARYHILL, WA	EAST WISHRAM, WA	M0	East	27.4778	5.110	156,783
						West	66.3896	5.110	378,806
	112.837	114.317	EAST MARYHILL, WA	WEST MARYHILL, WA	M0	East	27.4778	1.480	45,409
						West	66.3896	1.480	109,713
	114.317	123.846	WEST TOWAL, WA	EAST MARYHILL, WA	M0	East	27.4778	9.529	292,365
						West	66.3896	9.529	706,387
	123.846	125.712	EAST TOWAL, WA	WEST TOWAL, WA	M0	East	27.4781	1.866	57,252
						West	66.3896	1.866	138,327
	125.712	135.191	WEST BATES, WA	EAST TOWAL, WA	M0	East	27.4786	9.479	290,839
						West	66.3896	9.479	702,681

	135.191	136.670	EAST BATES, WA	WEST BATES, WA	M0	East	27.4766	1.479	45,376
						West	66.3852	1.479	109,631
	136.670	147.046	WEST ROOSEVELT, WA	EAST BATES, WA	M0	East	27.4748	10.376	318,317
						West	66.3812	10.376	769,079
	147.046	148.780	EAST ROOSEVELT, WA	WEST ROOSEVELT, WA	M0	East	25.7647	1.734	49,885
						West	65.7053	1.734	127,217
	148.780	156.923	WEST MCCREDIE, WA	EAST ROOSEVELT, WA	M0	East	24.4490	8.143	222,301
						West	65.1853	8.143	592,693
	156.923	158.403	EAST MCCREDIE, WA	WEST MCCREDIE, WA	M0	East	24.4490	1.480	40,403
						West	65.1853	1.480	107,723
	158.403	164.882	WEST WHITCOMB, WA	BENTON County, Washington	M0	East	24.4492	6.479	176,880
						West	65.1853	6.479	471,590
53	0.193	0.564	WISHRAM, WA	WASCO County, Oregon	M0	East	4.9346	0.371	2,042
						West	7.0231	0.371	2,906

KLICKITAT County, Washington **Estimated 2011 Line Haul Locomotive Fuel Consumption in Gallons** **9,464,213**

Estimated 2011 Main Line Mileage **92.4**

KLICKITAT County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES		YARD LOCOMOTIVES* = 0		TOTAL
	EPA Emission Factor g/gal	Emissions in Tons/Year	EPA Emission Factor g/gal	Emissions in Tons/Year	**Emissions in Tons/Year**
Hydrocarbon	7.7	80.31	14	0.00	80.31
Carbon Monoxide	26.6	277.43	27.82	0.00	277.43
Nitrogen Oxides	149	1554.00	235	0.00	1554.00
Particulates	4.4	45.89	5.3	0.00	45.89
Sulfur Dioxide	0.8	8.34	0.8	0.00	8.34

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

LEWIS County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons
52	50.569	52.434	THURSTON County, Washington	CENTRALIA NORTH, WA	M1	East	8.2419	1.865	17,166
						West	15.2755	1.865	31,815
	50.569	54.005	THURSTON County, Washington	CENTRALIA, WA	M2	East	8.2451	3.436	31,636
						West	15.2802	3.436	58,629
	52.434	54.005	CENTRALIA NORTH, WA	CENTRALIA, WA	M1	East	8.2511	1.571	14,474
						West	15.2890	1.571	26,820
	54.005	55.700	CENTRALIA, WA	CENTRALIA SOUTH, WA	M1	East	9.8787	1.695	18,697
						West	19.5265	1.695	36,956
	54.005	55.700	CENTRALIA, WA	CENTRALIA SOUTH, WA	M2	East	9.8787	1.695	18,697
						West	19.5265	1.695	36,956
	55.700	58.605	CENTRALIA SOUTH, WA	CHEHALIS JCT, WA	M1	East	9.8352	2.905	31,903
						West	19.4850	2.905	63,204
	55.700	58.605	CENTRALIA SOUTH, WA	CHEHALIS JCT, WA	M2	East	9.8352	2.905	31,903
						West	19.4850	2.905	63,204
	58.605	66.307	CHEHALIS JCT, WA	NAPAVINE SOUTH, WA	M1	East	9.7357	7.702	83,727
						West	19.3898	7.702	166,753
	58.605	66.307	CHEHALIS JCT, WA	NAPAVINE SOUTH, WA	M2	East	9.7357	7.702	83,727
						West	19.3898	7.702	166,753
	66.307	72.000	NAPAVINE SOUTH, WA	CP 72, WA	M1	East	9.7343	5.693	61,879
						West	19.3868	5.693	123,238
	66.307	72.000	NAPAVINE SOUTH, WA	CP 72, WA	M2	East	9.7343	5.693	61,879
						West	19.3868	5.693	123,238
	72.000	77.073	CP 72, WA	VADER, WA	M1	East	9.7343	5.073	55,140
						West	19.3868	5.073	109,816
	72.000	77.073	CP 72, WA	VADER, WA	M2	East	9.7343	5.073	55,140
						West	19.3868	5.073	109,816
	77.073	79.006	VADER, WA	COWLITZ County, Washington	M1	East	9.7303	1.933	21,004
						West	19.3854	1.933	41,846
	77.073	79.006	VADER, WA	COWLITZ County, Washington	M2	East	9.7303	1.933	21,004
						West	19.3854	1.933	41,846

LEWIS County, Washington **Estimated 2011 Line Haul Locomotive Fuel Consumption in Gallons** **1,808,862**

Estimated 2011 Main Line Mileage **31.9**

LEWIS County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES		YARD LOCOMOTIVES* = 2		TOTAL
	EPA Emission Factor g/gal	Emissions in Tons/Year	EPA Emission Factor g/gal	Emissions in Tons/Year	**Emissions in Tons/Year**
Hydrocarbon	7.7	15.35	14	1.54	16.89
Carbon Monoxide	26.6	53.02	27.82	3.07	56.09
Nitrogen Oxides	149	297.01	235	25.90	322.91
Particulates	4.4	8.77	5.3	0.58	9.35
Sulfur Dioxide	0.8	1.59	0.8	0.09	1.68

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

LINCOLN County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons
37	1504.018	1509.913	SPOKANE County, Washington	EAST EDWALL, WA	M0	East	14.1546	5.895	93,169
						West	13.7083	5.895	90,231
	1509.913	1511.497	EAST EDWALL, WA	WEST EDWALL, WA	M0	East	14.1526	1.584	25,032
						West	13.7059	1.584	24,241
	1511.497	1520.629	WEST EDWALL, WA	BLUESTEM, WA	M0	East	14.1470	9.132	144,253
						West	13.6993	9.132	139,688
	1520.629	1541.762	BLUESTEM, WA	LAMONA, WA	M1	East	7.0605	21.133	166,607
						West	6.8403	21.133	161,411
	1520.629	1541.762	BLUESTEM, WA	LAMONA, WA	M2	East	7.0605	21.133	166,607
						West	6.8403	21.133	161,411
	1541.762	1551.567	LAMONA, WA	EAST ODESSA, WA	M0	East	14.1079	9.805	154,456
						West	13.6709	9.805	149,672
	1551.567	1553.492	EAST ODESSA, WA	WEST ODESSA, WA	M0	East	14.1085	1.925	30,325
						West	13.6709	1.925	29,385
	1553.492	1564.588	WEST ODESSA, WA	EAST GIBSON, WA	M0	East	14.1132	11.096	174,859
						West	13.6765	11.096	169,448
	1564.588	1566.552	EAST GIBSON, WA	WEST GIBSON, WA	M0	East	14.1132	1.964	30,950
						West	13.6765	1.964	29,992
	1566.552	1568.952	WEST GIBSON, WA	GRANT County, Washington	M0	East	14.0980	2.400	37,784
						West	13.6774	2.400	36,657
46	30.306	31.388	SPOKANE County, Washington	WEST FISHTRAP, WA	M0	East	25.3454	1.082	30,616
						West	66.2445	1.082	80,020
	31.388	42.117	WEST FISHTRAP, WA	EAST SPRAGUE, WA	M0	East	25.1533	10.729	301,335
						West	66.2078	10.729	793,166
	42.117	43.803	EAST SPRAGUE, WA	WEST SPRAGUE, WA	M0	East	25.0360	1.686	47,132
						West	66.1737	1.686	124,577
	43.803	46.859	WEST SPRAGUE, WA	ADAMS County, Washington	M0	East	25.0383	3.056	85,425
						West	66.1719	3.056	225,764
378	23.675	89.785	SPOKANE County, Washington	GRANT County, Washington	M1	East	0.0000	66.110	0
						West	0.0000	66.110	0

LINCOLN County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES		YARD LOCOMOTIVES* = 0		TOTAL
	EPA Emission Factor g/gal	Emissions in Tons/Year	EPA Emission Factor g/gal	Emissions in Tons/Year	**Emissions in Tons/Year**
Hydrocarbon	7.7	31.43	14	0.00	31.43
Carbon Monoxide	26.6	108.58	27.82	0.00	108.58
Nitrogen Oxides	149	608.22	235	0.00	608.22
Particulates	4.4	17.96	5.3	0.00	17.96
Sulfur Dioxide	0.8	3.27	0.8	0.00	3.27

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

MASON County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons

MASON County, Washington **Estimated 2011 Line Haul Locomotive Fuel Consumption in Gallons** **0**

Estimated 2011 Main Line Mileage **0.0**

MASON County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES EPA Emission Factor g/gal	LINE HAUL LOCOMOTIVES Emissions in Tons/Year	YARD LOCOMOTIVES* = 0 EPA Emission Factor g/gal	YARD LOCOMOTIVES* = 0 Emissions in Tons/Year	TOTAL **Emissions in Tons/Year**
Hydrocarbon	7.7	0.00	14	0.00	0.00
Carbon Monoxide	26.6	0.00	27.82	0.00	0.00
Nitrogen Oxides	149	0.00	235	0.00	0.00
Particulates	4.4	0.00	5.3	0.00	0.00
Sulfur Dioxide	0.8	0.00	0.8	0.00	0.00

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

OKANOGAN County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons

OKANOGAN County, Washington **Estimated 2011 Line Haul Locomotive Fuel Consumption in Gallons** **0**

Estimated 2011 Main Line Mileage **0.0**

OKANOGAN County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES EPA Emission Factor g/gal	LINE HAUL LOCOMOTIVES Emissions in Tons/Year	YARD LOCOMOTIVES* = 0 EPA Emission Factor g/gal	YARD LOCOMOTIVES* = 0 Emissions in Tons/Year	TOTAL **Emissions in Tons/Year**
Hydrocarbon	7.7	0.00	14	0.00	0.00
Carbon Monoxide	26.6	0.00	27.82	0.00	0.00
Nitrogen Oxides	149	0.00	235	0.00	0.00
Particulates	4.4	0.00	5.3	0.00	0.00
Sulfur Dioxide	0.8	0.00	0.8	0.00	0.00

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

PACIFIC County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons

PACIFIC County, Washington **Estimated 2011 Line Haul Locomotive Fuel Consumption in Gallons** **0**

Estimated 2011 Main Line Mileage **0.0**

PACIFIC County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES EPA Emission Factor g/gal	LINE HAUL LOCOMOTIVES Emissions in Tons/Year	YARD LOCOMOTIVES* = 0 EPA Emission Factor g/gal	YARD LOCOMOTIVES* = 0 Emissions in Tons/Year	TOTAL **Emissions in Tons/Year**
Hydrocarbon	7.7	0.00	14	0.00	0.00
Carbon Monoxide	26.6	0.00	27.82	0.00	0.00
Nitrogen Oxides	149	0.00	235	0.00	0.00
Particulates	4.4	0.00	5.3	0.00	0.00
Sulfur Dioxide	0.8	0.00	0.8	0.00	0.00

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor'' data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

PEND OREILLE County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons

PEND OREILLE County, Washington **Estimated 2011 Line Haul Locomotive Fuel Consumption in Gallons** **0**

Estimated 2011 Main Line Mileage **0.0**

PEND OREILLE County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES EPA Emission Factor g/gal	LINE HAUL LOCOMOTIVES Emissions in Tons/Year	YARD LOCOMOTIVES* = 0 EPA Emission Factor g/gal	YARD LOCOMOTIVES* = 0 Emissions in Tons/Year	TOTAL **Emissions in Tons/Year**
Hydrocarbon	7.7	0.00	14	0.00	0.00
Carbon Monoxide	26.6	0.00	27.82	0.00	0.00
Nitrogen Oxides	149	0.00	235	0.00	0.00
Particulates	4.4	0.00	5.3	0.00	0.00
Sulfur Dioxide	0.8	0.00	0.8	0.00	0.00

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

PIERCE County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons
51	24.865	29.660	KING County, Washington	CP SUMNER, WA	M1	East	10.1433	4.795	54,306
						West	14.6027	4.795	78,181
	24.865	29.660	KING County, Washington	CP SUMNER, WA	M2	East	10.1433	4.795	54,306
						West	14.6027	4.795	78,181
	29.660	33.940	CP SUMNER, WA	STEWART, WA	M1	East	10.0995	4.280	48,266
						West	14.5644	4.280	69,604
	29.660	33.940	CP SUMNER, WA	STEWART, WA	M2	East	10.0995	4.280	48,266
						West	14.5644	4.280	69,604
	33.940	37.830	STEWART, WA	CLEAR CREEK, WA	M1	East	10.0711	3.890	43,744
						West	14.5414	3.890	63,161
	33.940	37.830	STEWART, WA	CLEAR CREEK, WA	M2	East	10.0711	3.890	43,744
						West	14.5414	3.890	63,161
	37.830	38.240	CLEAR CREEK, WA	TR JCT, WA	M1	East	10.0735	0.410	4,612
						West	14.5489	0.410	6,661
	37.830	38.240	CLEAR CREEK, WA	TR JCT, WA	M2	East	10.0735	0.410	4,612
						West	14.5489	0.410	6,661
	38.240	38.570	TR JCT, WA	BAY STREET, WA	M1	East	10.0852	0.330	3,716
						West	14.5859	0.330	5,375
	38.240	38.570	TR JCT, WA	BAY STREET, WA	M2	East	10.0852	0.330	3,716
						West	14.5859	0.330	5,375
	38.570	40.023	BAY STREET, WA	END STATE, WA	M1	East	10.0852	1.453	16,362
						West	14.5859	1.453	23,664
	38.570	39.040	BAY STREET, WA	CP TACOMA, WA	M2	East	10.0852	0.470	5,293
						West	14.5859	0.470	7,655
	39.040	39.591	CP TACOMA, WA	D STREET, WA	M2	East	10.0852	0.551	6,205
						West	14.5859	0.551	8,974
	39.591	40.023	D STREET, WA	END STATE, WA	M2	East	10.0852	0.432	4,865
						West	14.5859	0.432	7,036
52	0.000	1.400	21ST STREET, WA	DAVIS, WA	M1	East	8.3737	1.400	13,090
						West	15.2691	1.400	23,869
	0.000	3.220	21ST STREET, WA	HARBOR, WA	M2	East	8.3707	3.220	30,096
						West	15.2677	3.220	54,894

	1.400	3.220	DAVIS, WA	HARBOR, WA	M1	East	8.3685	1.820	17,006
						West	15.2666	1.820	31,025
	3.220	5.140	HARBOR, WA	RUSTON, WA	M1	East	8.3685	1.920	17,941
						West	15.2666	1.920	32,729
	3.220	5.140	HARBOR, WA	RUSTON, WA	M2	East	8.3685	1.920	17,941
						West	15.2666	1.920	32,729
	5.140	6.550	RUSTON, WA	NELSON BENNETT, WA	M0	East	16.7469	1.410	26,366
						West	30.5407	1.410	48,083
	6.550	10.000	NELSON BENNETT, WA	TITLOW, WA	M1	East	8.3751	3.450	32,263
						West	15.2714	3.450	58,829
	6.550	10.000	NELSON BENNETT, WA	TITLOW, WA	M2	East	8.3751	3.450	32,263
						West	15.2714	3.450	58,829
	10.000	13.567	TITLOW, WA	PIONEER, WA	M1	East	8.3757	3.567	33,360
						West	15.2702	3.567	60,820
	10.000	13.567	TITLOW, WA	PIONEER, WA	M2	East	8.3757	3.567	33,360
						West	15.2702	3.567	60,820
	13.567	24.701	PIONEER, WA	NISQUALLY, WA	M1	East	8.3888	11.134	104,291
						West	15.3044	11.134	190,267
	13.567	24.701	PIONEER, WA	NISQUALLY, WA	M2	East	8.3888	11.134	104,291
						West	15.3044	11.134	190,267
	24.701	25.380	NISQUALLY, WA	THURSTON County, Washington	M1	East	8.3887	0.679	6,360
						West	15.3570	0.679	11,643
	24.701	25.380	NISQUALLY, WA	THURSTON County, Washington	M2	East	8.3887	0.679	6,360
						West	15.3570	0.679	11,643
400	0.794	3.000	BEGIN STATE, WA	S TACOMA, WA	M0	East	0.0184	2.206	45
						West	0.0310	2.206	76
	8.920	9.700	WEST LAKEVIEW, WA	MP 9.7, WA	M0	East	0.0572	0.780	50
						West	0.1275	0.780	111
	9.700	20.050	MP 9.7, WA	EAST ROY, WA	M0	East	0.0467	10.350	540
						West	0.0940	10.350	1,086
	20.050	20.950	EAST ROY, WA	WEST ROY, WA	M0	East	0.0436	0.900	44
						West	0.0841	0.900	85
401	0.000	11.325	LAKEVIEW, WA	END STATE, WA	M0	East	0.0965	11.325	1,220
						West	0.0383	11.325	484

PIERCE County, Washington **Estimated 2011 Line Haul Locomotive Fuel Consumption in Gallons** **2,180,480**

Estimated 2011 Main Line Mileage **70.8**

PIERCE County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES		YARD LOCOMOTIVES* = 4		TOTAL
	EPA Emission Factor g/gal	Emissions in Tons/Year	EPA Emission Factor g/gal	Emissions in Tons/Year	**Emissions in Tons/Year**
Hydrocarbon	7.7	18.50	14	3.09	21.59
Carbon Monoxide	26.6	63.92	27.82	6.13	70.05
Nitrogen Oxides	149	358.03	235	51.79	409.82
Particulates	4.4	10.57	5.3	1.17	11.74
Sulfur Dioxide	0.8	1.92	0.8	0.18	2.10

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

SKAGIT County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons
50	66.145	67.434	SOUTH MT VERNON, WA	NORTH MT VERNON, WA	M0	East	12.4091	1.289	17,860
						West	15.4494	1.289	22,236
	67.434	70.362	NORTH MT VERNON, WA	SOUTH BURLINGTON, WA	M0	East	12.6175	2.928	41,252
						West	15.6308	2.928	51,103
	70.362	71.870	SOUTH BURLINGTON, WA	BURLINGTON, WA	M0	East	13.0181	1.508	21,920
						West	15.9797	1.508	26,907
	71.870	72.076	BURLINGTON, WA	NORTH BURLINGTON, WA	M0	East	10.7977	0.206	2,484
						West	14.0174	0.206	3,224
	72.076	79.074	NORTH BURLINGTON, WA	SOUTH BOW, WA	M0	East	10.7977	6.998	84,372
						West	14.0174	6.998	109,531
	79.074	80.907	SOUTH BOW, WA	NORTH BOW, WA	M0	East	10.7929	1.833	22,090
						West	14.0575	1.833	28,772
	80.907	86.845	NORTH BOW, WA	WHATCOM County, Washington	M0	East	10.7899	5.938	71,538
						West	14.0680	5.938	93,272
403	85.781	93.570	SEDRO WOOLLEY, WA	WEST THORNWOOD, WA	M0	East	0.6387	7.789	5,555
						West	0.6708	7.789	5,834
	93.570	98.241	WEST THORNWOOD, WA	WHATCOM County, Washington	M0	East	0.6324	4.671	3,298
						West	0.6688	4.671	3,488
409	3.980	16.610	ANACORTES, WA	BURLINGTON, WA	M0	East	0.7041	12.630	9,930
						West	1.1034	12.630	15,561
	16.610	22.000	BURLINGTON, WA	SEDRO WOOLLEY, WA	M0	East	0.6384	5.390	3,842
						West	0.6708	5.390	4,037

SKAGIT County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES		YARD LOCOMOTIVES* = 4		TOTAL
	EPA Emission Factor g/gal	Emissions in Tons/Year	EPA Emission Factor g/gal	Emissions in Tons/Year	**Emissions in Tons/Year**
Hydrocarbon	7.7	5.50	14	3.09	8.59
Carbon Monoxide	26.6	19.00	27.82	6.13	25.13
Nitrogen Oxides	149	106.42	235	51.79	158.21
Particulates	4.4	3.14	5.3	1.17	4.31
Sulfur Dioxide	0.8	0.57	0.8	0.18	0.75

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

SKAMANIA County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons
47	32.217	41.512	CLARK County, Washington	EAST WASHOUGAL, WA	M0	East	27.0545	9.295	280,796
						West	63.8794	9.295	662,999
	41.512	43.601	EAST SKAMANIA, WA	WEST SKAMANIA, WA	M0	East	27.0496	2.089	63,095
						West	63.8754	2.089	148,994
	43.601	53.675	WEST STEVENSON, WA	EAST SKAMANIA, WA	M0	East	27.0493	10.074	304,266
						West	63.8769	10.074	718,524
	53.675	55.887	EAST STEVENSON, WA	WEST STEVENSON, WA	M0	East	27.0146	2.212	66,724
						West	63.8240	2.212	157,639
	55.887	63.928	WEST COOKS, WA	EAST STEVENSON, WA	M0	East	27.0422	8.041	242,799
						West	63.8328	8.041	573,125
	63.928	65.941	EAST COOKS, WA	WEST COOKS, WA	M0	East	27.0640	2.013	60,832
						West	63.8425	2.013	143,499
	65.941	72.822	WEST BINGEN, WA	KLICKITAT County, Washington	M0	East	27.0597	6.881	207,911
						West	63.8579	6.881	490,647

SKAMANIA County, Washington **Estimated 2011 Line Haul Locomotive Fuel Consumption in Gallons** **4,121,850**

Estimated 2011 Main Line Mileage **40.6**

SKAMANIA County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES		YARD LOCOMOTIVES* = 0		TOTAL
	EPA Emission Factor g/gal	Emissions in Tons/Year	EPA Emission Factor g/gal	Emissions in Tons/Year	**Emissions in Tons/Year**
Hydrocarbon	7.7	34.98	14	0.00	34.98
Carbon Monoxide	26.6	120.82	27.82	0.00	120.82
Nitrogen Oxides	149	676.80	235	0.00	676.80
Particulates	4.4	19.99	5.3	0.00	19.99
Sulfur Dioxide	0.8	3.63	0.8	0.00	3.63

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

SNOHOMISH County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons
37	1740.317	1740.534	KING County, Washington	WEST BARING, WA	M0	East	14.7373	0.217	3,576
						West	14.4945	0.217	3,517
	1740.534	1754.608	WEST BARING, WA	EAST GOLD BAR, WA	M0	East	14.7375	14.074	231,599
						West	14.4947	14.074	227,784
	1754.608	1756.726	EAST GOLD BAR, WA	WEST GOLD BAR, WA	M0	East	14.7484	2.118	34,879
						West	14.5088	2.118	34,313
	1756.726	1768.334	WEST GOLD BAR, WA	EAST MONROE, WA	M0	East	14.7618	11.608	191,334
						West	14.5260	11.608	188,278
	1768.334	1770.652	EAST MONROE, WA	WEST MONROE, WA	M0	East	14.9504	2.318	38,696
						West	14.7021	2.318	38,053
	1770.652	1776.213	WEST MONROE, WA	SNOHOMISH JCT WEST, WA	M0	East	14.9666	5.561	92,933
						West	14.7154	5.561	91,374
	1776.213	1781.142	SNOHOMISH JCT WEST, WA	LOWELL, WA	M0	East	15.0153	4.929	82,640
						West	14.7470	4.929	81,163
	1781.142	1782.608	LOWELL, WA	PA JCT, WA	M0	East	14.9684	1.466	24,502
						West	14.7365	1.466	24,123
	1782.608	1782.900	PA JCT, WA	BROADWAY, WA	M0	East	30.2862	0.292	9,875
						West	27.0071	0.292	8,806
	1782.900	1784.475	BROADWAY, WA	END STATE, WA	M0	East	28.9604	1.575	50,931
						West	25.9464	1.575	45,630
50	15.007	15.874	KING County, Washington	BLUE RIDGE, WA	M1	East	13.6013	0.867	13,161
						West	12.2263	0.867	11,831
	15.007	15.874	KING County, Washington	BLUE RIDGE, WA	M2	East	13.6013	0.867	13,161
						West	12.2263	0.867	11,831
	15.874	17.796	MP 18 EDMONDS, WA	MP 16 EDMONDS, WA	M0	East	27.2159	1.922	58,408
						West	24.4873	1.922	52,552
	17.796	27.050	MP 27 MUKILTEO, WA	MP 18 EDMONDS, WA	M1	East	13.6045	9.254	140,575
						West	12.2666	9.254	126,750
	17.796	27.050	MP 27 MUKILTEO, WA	MP 18 EDMONDS, WA	M2	East	13.6045	9.254	140,575
						West	12.2666	9.254	126,750
	27.050	27.837	MP 28 MUKILTEO, WA	MP 27 MUKILTEO, WA	M0	East	27.2091	0.787	23,910
						West	24.5332	0.787	21,559

	27.837	28.923	CP MUKILTEO, WA	MP 28 MUKILTEO, WA	M1	East	13.6213	1.086	16,517
						West	12.2878	1.086	14,900
	27.837	28.923	CP MUKILTEO, WA	MP 28 MUKILTEO, WA	M2	East	13.6213	1.086	16,517
						West	12.2878	1.086	14,900
	28.923	31.449	HOWARTH PARK, WA	CP MUKILTEO, WA	M1	East	13.6193	2.526	38,413
						West	12.2925	2.526	34,671
	28.923	31.449	HOWARTH PARK, WA	CP MUKILTEO, WA	M2	East	13.6193	2.526	38,413
						West	12.2925	2.526	34,671
	31.449	32.159	EVERETT JCT, WA	HOWARTH PARK, WA	M1	East	12.6796	0.710	10,052
						West	11.4442	0.710	9,073
	31.449	32.159	EVERETT JCT, WA	HOWARTH PARK, WA	M2	East	12.6796	0.710	10,052
						West	11.4442	0.710	9,073
	32.159	32.160	EVERETT JCT, WA	END SUB, WA	M0	East	0.0560	0.001	0
						West	0.0503	0.001	0
	32.160	36.980	BEGIN SUB, WA	BRIDGE 37, WA	M0	East	0.0560	4.820	301
						West	0.0503	4.820	271
	36.980	37.685	BRIDGE 37, WA	BRIDGE 37.8, WA	M0	East	12.1107	0.705	9,534
						West	15.0572	0.705	11,853
	37.685	38.237	BRIDGE 37.8, WA	BRIDGE 38.3, WA	M0	East	12.4627	0.552	7,682
						West	15.4954	0.552	9,551
	38.237	44.775	BRIDGE 38.3, WA	SOUTH ENGLISH, WA	M0	East	12.4649	6.538	90,997
						West	15.4849	6.538	113,044
	44.775	46.238	SOUTH ENGLISH, WA	NORTH ENGLISH, WA	M0	East	12.4601	1.463	20,355
						West	15.4743	1.463	25,278
	46.238	55.179	NORTH ENGLISH, WA	SOUTH STANWOOD, WA	M0	East	12.4580	8.941	124,374
						West	15.4738	8.941	154,482
	56.547	58.000	NORTH STANWOOD, WA	SOUTH MT VERNON, WA	M0	East	12.4150	1.453	20,142
						West	15.4596	1.453	25,082
	56.547	57.600	SOUTH STANWOOD, WA	LOGEN, WA	M0	East	12.4150	1.053	14,597
						West	15.4596	1.053	18,177
	57.600	58.000	LOGEN, WA	NORTH STANWOOD, WA	M0	East	12.4150	0.400	5,545
						West	15.4596	0.400	6,905
406	0.000	7.140	KRUSE JCT, WA	END SUB, WA	M0	East	0.2725	7.140	2,173
						West	0.2609	7.140	2,080
	7.140	8.190	BEGIN SUB, WA	ARLINGTON, WA	M0	East	0.2725	1.050	319
						West	0.2609	1.050	306
407	0.000	0.714	PA JUNCTION, WA	END STATE, WA	M0	East	12.3575	0.714	9,852
						West	15.4350	0.714	12,306

408	6.400	8.010	DELTA JCT, WA	END SUB, WA	M0	East	6.9241	1.610	12,448
						West	8.5971	1.610	15,455
	8.010	10.894	BEGIN SUB, WA	END SUB, WA	M0	East	6.9241	2.884	22,297
						West	8.5971	2.884	27,685

SNOHOMISH County, Washington **Estimated 2011 Line Haul Locomotive Fuel Consumption in Gallons** **3,255,414**

Estimated 2011 Main Line Mileage **100.6**

SNOHOMISH County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES		YARD LOCOMOTIVES* = 3		TOTAL
	EPA Emission Factor g/gal	Emissions in Tons/Year	EPA Emission Factor g/gal	Emissions in Tons/Year	**Emissions in Tons/Year**
Hydrocarbon	7.7	27.62	14	2.31	29.94
Carbon Monoxide	26.6	95.43	27.82	4.60	100.03
Nitrogen Oxides	149	534.53	235	38.85	573.38
Particulates	4.4	15.78	5.3	0.88	16.66
Sulfur Dioxide	0.8	2.87	0.8	0.13	3.00

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

SPOKANE County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons
37	1463.630	1468.100	DEAN, WA	MEAD, WA	M0	East	1.3424	4.470	6,700
						West	1.9580	4.470	9,773
	1468.100	1473.000	MEAD, WA	HILLYARD, WA	M0	East	2.9945	4.900	16,384
						West	2.3569	4.900	12,895
	1473.000	1475.400	HILLYARD, WA	MP 1475.4, WA	M0	East	3.0735	2.400	8,236
						West	2.5872	2.400	6,933
	1475.400	1476.200	MP 1475.4, WA	NAPA STREET, WA	M0	East	3.0735	0.800	2,745
						West	2.5872	0.800	2,311
	1480.887	1481.652	SUNSET JCT, WA	LATAH JCT, WA	M0	East	15.6155	0.765	13,339
						West	78.1326	0.765	66,740
	1481.652	1489.198	LATAH JCT, WA	EAST LYONS, WA	M0	East	14.1564	7.546	119,279
						West	13.7147	7.546	115,558
	1489.198	1490.760	EAST LYONS, WA	WEST LYONS, WA	M0	East	14.1559	1.562	24,690
						West	13.7147	1.562	23,920
	1490.760	1498.649	WEST LYONS, WA	EAST ESPANOLA, WA	M0	East	14.1548	7.889	124,687
						West	13.7145	7.889	120,809
	1498.649	1500.150	EAST ESPANOLA, WA	WEST ESPANOLA, WA	M0	East	14.1545	1.501	23,723
						West	13.7113	1.501	22,980
	1500.150	1504.018	WEST ESPANOLA, WA	LINCOLN County, Washington	M0	East	14.1546	3.868	61,135
						West	13.7083	3.868	59,208
45	53.046	58.889	KOOTENAI County, Idaho	OTIS ORCHARDS, WA	M1	East	19.6114	5.843	127,945
						West	40.6922	5.843	265,477
	53.046	58.889	KOOTENAI County, Idaho	OTIS ORCHARDS, WA	M2	East	19.6114	5.843	127,945
						West	40.6922	5.843	265,477
	58.889	62.990	OTIS ORCHARDS, WA	IRVIN, WA	M0	East	39.3735	4.101	180,297
						West	81.4597	4.101	373,017
	62.990	65.840	IRVIN, WA	PARKWATER, WA	M1	East	19.7531	2.850	62,860
						West	40.7372	2.850	129,638
	62.990	65.840	IRVIN, WA	PARKWATER, WA	M2	East	19.7531	2.850	62,860
						West	40.7372	2.850	129,638
	65.840	68.100	PARKWATER, WA	HAVANNA STREET, WA	M1	East	19.7665	2.260	49,881
						West	40.7438	2.260	102,817

	65.840	68.100	PARKWATER, WA	HAVANNA STREET, WA	M2	East	19.7665	2.260	49,881
						West	40.7438	2.260	102,817
	68.100	69.673	HAVANNA STREET, WA	NAPA ST, WA	M1	East	21.4484	1.573	37,672
						West	41.5289	1.573	72,942
	68.100	69.673	HAVANNA STREET, WA	NAPA ST, WA	M2	East	21.4484	1.573	37,672
						West	41.5289	1.573	72,942
	69.673	69.697	NAPA ST, WA	ERIE, WA	M1	East	21.4484	0.024	575
						West	41.5289	0.024	1,113
	69.673	71.250	NAPA ST, WA	END STATE, WA	M2	East	19.9351	1.577	35,103
						West	40.2549	1.577	70,884
	69.697	71.250	ERIE, WA	END STATE, WA	M1	East	19.9141	1.553	34,532
						West	40.2372	1.553	69,774
46	0.700	1.104	SPOKANE, WA	SUNSET JCT, WA	M1	East	19.8343	0.404	8,947
						West	39.8446	0.404	17,974
	0.700	1.104	KOOTENAI RIVER SUB, WA	SUNSET JCT, WA	M2	East	19.8343	0.404	8,947
						West	39.8446	0.404	17,974
	1.115	1.341	SUNSET JCT, WA	EAST EMPIRE, WA	M0	East	24.2225	0.226	6,113
						West	1.5946	0.226	402
	1.341	3.898	EAST EMPIRE, WA	WEST EMPIRE, WA	M0	East	24.2225	2.557	69,158
						West	1.5946	2.557	4,553
	3.898	8.971	WEST EMPIRE, WA	MARSHALL, WA	M0	East	24.2225	5.073	137,208
						West	1.5946	5.073	9,033
	8.971	11.785	MARSHALL, WA	LAKESIDE JCT, WA	M0	East	24.1147	2.814	75,771
						West	1.7023	2.814	5,349
	11.785	19.816	LAKESIDE JCT, WA	EAST BABB, WA	M0	East	25.4021	8.031	227,790
						West	66.0121	8.031	591,955
	19.816	21.520	EAST BABB, WA	WEST BABB, WA	M0	East	25.3459	1.704	48,225
						West	66.2444	1.704	126,042
	21.520	29.704	WEST BABB, WA	EAST FISHTRAP, WA	M0	East	25.3459	8.184	231,616
						West	66.2444	8.184	605,355
	29.704	30.306	EAST FISHTRAP, WA	LINCOLN County, Washington	M0	East	25.3454	0.602	17,042
						West	66.2445	0.602	44,542
47	365.382	365.848	UP JCT, WA	LAKESIDE JCT., WA	M0	East	0.1486	0.466	77
						West	6.6403	0.466	3,455
	365.848	367.110	SCRIBNER, WA	UP JCT, WA	M0	East	1.4433	1.262	2,034
						West	64.4671	1.262	90,843
	367.110	369.140	WEST OVERLOOK, WA	SCRIBNER, WA	M0	East	1.4439	2.030	3,273
						West	64.4715	2.030	146,137
	369.140	371.434	EAST OVERLOOK, WA	WEST OVERLOOK, WA	M0	East	1.4451	2.294	3,702
						West	64.4733	2.294	165,146

	371.434	375.121	LATAH JCT, WA	END SUB, WA	M0	East	1.4631	3.687	6,023
						West	64.4993	3.687	265,536
	375.121	375.122	BEGIN SUB, WA	EAST OVERLOOK, WA	M0	East	1.4631	0.001	2
						West	64.4993	0.001	72
376	13.776	26.410	BEGIN STATE, WA	DEER PARK, WA	M0	East	1.2113	12.634	17,088
						West	1.9280	12.634	27,198
	26.410	30.613	DEER PARK, WA	STEVENS County, Washington	M0	East	1.2113	4.203	5,684
						West	1.9279	4.203	9,047

SPOKANE County, Washington **Estimated 2011 Line Haul Locomotive Fuel Consumption in Gallons** **6,305,119**

Estimated 2011 Main Line Mileage **111.7**

SPOKANE County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES		YARD LOCOMOTIVES* = 10		TOTAL
	EPA Emission Factor g/gal	Emissions in Tons/Year	EPA Emission Factor g/gal	Emissions in Tons/Year	**Emissions in Tons/Year**
Hydrocarbon	7.7	53.50	14	7.71	61.22
Carbon Monoxide	26.6	184.82	27.82	15.33	200.15
Nitrogen Oxides	149	1035.29	235	129.49	1164.77
Particulates	4.4	30.57	5.3	2.92	33.49
Sulfur Dioxide	0.8	5.56	0.8	0.44	6.00

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

STEVENS County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons
376	30.613	32.000	SPOKANE County, Washington	MP 32, WA	M0	East	1.2113	1.387	1,877
						West	1.9279	1.387	2,987
	32.000	38.190	MP 32, WA	EAST LOON LAKE, WA	M0	East	1.2113	6.190	8,372
						West	1.9279	6.190	13,325
	38.190	38.670	EAST LOON LAKE, WA	WEST LOON LAKE, WA	M0	East	1.2111	0.480	649
						West	1.9269	0.480	1,033
	38.670	47.000	WEST LOON LAKE, WA	MP 47, WA	M0	East	1.2110	8.330	11,264
						West	1.9255	8.330	17,910
	47.000	56.360	MP 47, WA	EAST VALLEY, WA	M0	East	1.2110	9.360	12,657
						West	1.9252	9.360	20,121
	56.360	57.220	EAST VALLEY, WA	WEST VALLEY, WA	M0	East	1.1564	0.860	1,110
						West	1.6704	0.860	1,604
	57.220	61.000	WEST VALLEY, WA	MP 60, WA	M0	East	1.1459	3.780	4,837
						West	1.6209	3.780	6,841
377	8.442	10.932	FERRY County, Washington	FERRY County, Washington	M1	East	0.0000	2.490	0
						West	0.0000	2.490	0

STEVENS County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES		YARD LOCOMOTIVES* = 0		TOTAL
	EPA Emission Factor g/gal	Emissions in Tons/Year	EPA Emission Factor g/gal	Emissions in Tons/Year	**Emissions in Tons/Year**
Hydrocarbon	7.7	0.89	14	0.00	0.89
Carbon Monoxide	26.6	3.07	27.82	0.00	3.07
Nitrogen Oxides	149	17.17	235	0.00	17.17
Particulates	4.4	0.51	5.3	0.00	0.51
Sulfur Dioxide	0.8	0.09	0.8	0.00	0.09

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

THURSTON County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons
52	25.380	31.900	PIERCE County, Washington	CP 31, WA	M1	East	8.3887	6.520	61,072
						West	15.3570	6.520	111,802
	25.380	31.900	PIERCE County, Washington	CP 31, WA	M2	East	8.3887	6.520	61,072
						West	15.3570	6.520	111,802
	31.900	32.400	CP 31, WA	CP 32, WA	M1	East	8.3890	0.500	4,684
						West	15.3573	0.500	8,574
	31.900	32.400	CP 31, WA	CP 32, WA	M2	East	8.3890	0.500	4,684
						West	15.3573	0.500	8,574
	32.400	37.397	CP 32, WA	PLUMB, WA	M1	East	8.3145	4.997	46,392
						West	15.3156	4.997	85,455
	32.400	37.397	CP 32, WA	PLUMB, WA	M2	East	8.3145	4.997	46,392
						West	15.3156	4.997	85,455
	37.397	49.501	PLUMB, WA	WABASH, WA	M1	East	8.2396	12.104	111,360
						West	15.2739	12.104	206,431
	37.397	49.501	PLUMB, WA	WABASH, WA	M2	East	8.2396	12.104	111,360
						West	15.2739	12.104	206,431
	49.501	50.569	WABASH, WA	LEWIS County, Washington	M1	East	8.2419	1.068	9,826
						West	15.2755	1.068	18,212
	49.501	50.569	WABASH, WA	LEWIS County, Washington	M2	East	8.2451	1.068	9,830
						West	15.2802	1.068	18,218

THURSTON County, Washington **Estimated 2011 Line Haul Locomotive Fuel Consumption in Gallons** **1,327,626**

Estimated 2011 Main Line Mileage **25.2**

THURSTON County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES		YARD LOCOMOTIVES* = 0		TOTAL
	EPA Emission Factor g/gal	Emissions in Tons/Year	EPA Emission Factor g/gal	Emissions in Tons/Year	**Emissions in Tons/Year**
Hydrocarbon	7.7	11.27	14	0.00	11.27
Carbon Monoxide	26.6	38.92	27.82	0.00	38.92
Nitrogen Oxides	149	217.99	235	0.00	217.99
Particulates	4.4	6.44	5.3	0.00	6.44
Sulfur Dioxide	0.8	1.17	0.8	0.00	1.17

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

WALLA WALLA County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons

WALLA WALLA County, Washington **Estimated 2011 Line Haul Locomotive Fuel Consumption in Gallons** **0**

Estimated 2011 Main Line Mileage **0.0**

WALLA WALLA County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES EPA Emission Factor g/gal	LINE HAUL LOCOMOTIVES Emissions in Tons/Year	YARD LOCOMOTIVES* = 0 EPA Emission Factor g/gal	YARD LOCOMOTIVES* = 0 Emissions in Tons/Year	TOTAL **Emissions in Tons/Year**
Hydrocarbon	7.7	0.00	14	0.00	0.00
Carbon Monoxide	26.6	0.00	27.82	0.00	0.00
Nitrogen Oxides	149	0.00	235	0.00	0.00
Particulates	4.4	0.00	5.3	0.00	0.00
Sulfur Dioxide	0.8	0.00	0.8	0.00	0.00

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

WHATCOM County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons
50	86.845	92.201	SKAGIT County, Washington	SOUTH SOUTH BELLINGHAM, WA	M0	East	10.7899	5.356	64,531
						West	14.0680	5.356	84,137
	92.201	97.180	BELLINGHAM, WA	SOUTH SOUTH BELLINGHAM, WA	M0	East	10.7894	4.979	59,984
						West	14.0692	4.979	78,218
	97.180	106.400	SOUTH FERNDALE, WA	BELLINGHAM, WA	M0	East	11.1546	9.220	114,837
						West	14.4261	9.220	148,517
	106.400	108.196	SOUTH FERNDALE, WA	NORTH FERNDALE, WA	M0	East	11.2132	1.796	22,487
						West	14.3782	1.796	28,834
	108.196	111.810	NORTH FERNDALE, WA	CUSTER, WA	M0	East	11.2132	3.614	45,249
						West	14.3782	3.614	58,021
	111.810	115.056	CUSTER, WA	SOUTH SWIFT, WA	M0	East	9.3043	3.246	33,723
						West	13.5534	3.246	49,124
	115.056	116.787	SOUTH SWIFT, WA	NORTH SWIFT, WA	M0	East	9.1711	1.731	17,726
						West	13.4455	1.731	25,988
	116.787	119.594	NORTH SWIFT, WA	BLAINE, WA	M0	East	9.0927	2.807	28,499
						West	13.3638	2.807	41,886
399	19.760	25.305	HAMPTON, WA	END STATE, WA	M0	East	0.0642	5.545	397
						West	0.0299	5.545	185
403	98.241	103.362	SKAGIT County, Washington	WEST ACME, WA	M0	East	0.6324	5.121	3,616
						West	0.6688	5.121	3,824
	103.362	111.253	WEST ACME, WA	WEST DEMING, WA	M0	East	0.6322	7.891	5,570
						West	0.6688	7.891	5,893
	111.253	120.850	WEST DEMING, WA	WEST NOOKSACK, WA	M0	East	0.6321	9.597	6,774
						West	0.6898	9.597	7,392
	120.850	127.187	WEST NOOKSACK, WA	END STATE, WA	M0	East	0.6341	6.337	4,487
						West	0.7094	6.337	5,020
418	0.000	5.334	INTALCO, WA	ARCO, WA	M0	East	1.2644	5.334	7,531
						West	1.0106	5.334	6,019
	5.334	5.900	ARCO, WA	ELLIOTT, WA	M0	East	0.5978	0.566	378
						West	0.4823	0.566	305

	5.900	8.800	ELLIOTT, WA	CHERRY POINT, WA	M0	East	0.5978	2.900	1,936
						West	0.4823	2.900	1,562
614	0.000	5.101	HAMPTON, WA	END STATE, WA	M0	East	0.0299	5.101	170
						West	0.0642	5.101	366

WHATCOM County, Washington **Estimated 2011 Line Haul Locomotive Fuel Consumption in Gallons** **963,185**

Estimated 2011 Main Line Mileage **81.1**

WHATCOM County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES		YARD LOCOMOTIVES* = 2		TOTAL
	EPA Emission Factor g/gal	Emissions in Tons/Year	EPA Emission Factor g/gal	Emissions in Tons/Year	**Emissions in Tons/Year**
Hydrocarbon	7.7	8.17	14	1.54	9.72
Carbon Monoxide	26.6	28.23	27.82	3.07	31.30
Nitrogen Oxides	149	158.15	235	25.90	184.05
Particulates	4.4	4.67	5.3	0.58	5.25
Sulfur Dioxide	0.8	0.85	0.8	0.09	0.94

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

WHITMAN County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons
384	25.040	84.036	SPOKANE County, Washington	LATAH County, Idaho	M1	East	0.0000	58.995	0
						West	0.0000	58.995	0

WHITMAN County, Washington **Estimated 2011 Line Haul Locomotive Fuel Consumption in Gallons** **0**

Estimated 2011 Main Line Mileage **59.0**

WHITMAN County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES EPA Emission Factor g/gal	LINE HAUL LOCOMOTIVES Emissions in Tons/Year	YARD LOCOMOTIVES* = 0 EPA Emission Factor g/gal	YARD LOCOMOTIVES* = 0 Emissions in Tons/Year	TOTAL **Emissions in Tons/Year**
Hydrocarbon	7.7	0.00	14	0.00	0.00
Carbon Monoxide	26.6	0.00	27.82	0.00	0.00
Nitrogen Oxides	149	0.00	235	0.00	0.00
Particulates	4.4	0.00	5.3	0.00	0.00
Sulfur Dioxide	0.8	0.00	0.8	0.00	0.00

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions

YAKIMA County, Washington

ESTIMATION OF FUEL CONSUMPTION FOR LINE HAUL LOCOMOTIVES

Locomotive Fuel Rate Per GTM/Gallon: 895.58

Line Segment	From Milepost	To Milepost	From Station	To Station	Track	Direction	Density Million GT	Distance in Miles	Fuel Use in Gallons
48	45.427	52.060	BENTON County, Washington	MABTON, WA	M0	East	2.2272	6.633	16,495
						West	2.4121	6.633	17,865
	52.060	69.420	MABTON, WA	EAST TOPPENISH, WA	M0	East	2.2268	17.360	43,164
						West	2.4090	17.360	46,696
	69.420	72.220	EAST TOPPENISH, WA	WEST TOPPENISH, WA	M0	East	2.2922	2.800	7,166
						West	2.4827	2.800	7,762
	72.220	93.040	WEST TOPPENISH, WA	EAST SELAH, WA	M0	East	2.2936	20.820	53,320
						West	2.4668	20.820	57,347
	93.040	97.430	EAST SELAH, WA	EAST POMONA, WA	M0	East	1.8119	4.390	8,882
						West	1.8412	4.390	9,025
	97.430	99.060	EAST POMONA, WA	WEST POMONA, WA	M0	East	1.8109	1.630	3,296
						West	1.8343	1.630	3,339
	99.060	101.310	WEST POMONA, WA	KITTITAS County, Washington	M0	East	1.8109	2.250	4,549
						West	1.8337	2.250	4,607
49	0.000	1.850	ELLENSBURG, WA	WEST ELLENSBURG, WA	M0	East	2.0758	1.850	4,288
						West	2.0981	1.850	4,334
	1.850	16.260	WEST ELLENSBURG, WA	EAST BRISTOL, WA	M0	East	2.0758	14.410	33,400
						West	2.0981	14.410	33,759
	16.260	17.960	EAST BRISTOL, WA	WEST BRISTOL, WA	M0	East	2.0758	1.700	3,940
						West	2.0976	1.700	3,982
	17.960	23.880	WEST BRISTOL, WA	EAST CLEELUM, WA	M0	East	2.0758	5.920	13,722
						West	2.0971	5.920	13,862
	23.880	26.700	EAST CLEELUM, WA	KITTITAS County, Washington	M0	East	2.0368	2.820	6,413
						West	2.0584	2.820	6,481

YAKIMA County

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES		YARD LOCOMOTIVES* = 1		TOTAL
	EPA Emission Factor g/gal	Emissions in Tons/Year	EPA Emission Factor g/gal	Emissions in Tons/Year	**Emissions in Tons/Year**
Hydrocarbon	7.7	3.46	14	0.77	4.23
Carbon Monoxide	26.6	11.95	27.82	1.53	13.48
Nitrogen Oxides	149	66.94	235	12.95	79.89
Particulates	4.4	1.98	5.3	0.29	2.27
Sulfur Dioxide	0.8	0.36	0.8	0.04	0.40

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.

BNSF Railway Company
2011 Estimation of BNSF Locomotive Emissions For Washington Counties

Estimated 2011 Line Haul Locomotive Fuel Consumption in Gallons **66,030,646**

Estimated 2011 Main Line Mileage **1,558.9**

ALL COUNTIES

2011 Estimation of BNSF Locomotive Emissions

POLLUTANT	LINE HAUL LOCOMOTIVES EPA Emission Factor g/gal	LINE HAUL LOCOMOTIVES Emissions in Tons/Year	YARD LOCOMOTIVES* = 80 EPA Emission Factor g/gal	YARD LOCOMOTIVES* = 80 Emissions in Tons/Year	TOTAL **Emissions in Tons/Year**
Hydrocarbon	7.7	560.30	14	61.71	622.01
Carbon Monoxide	26.6	1935.57	27.82	122.63	2058.20
Nitrogen Oxides	149	10842.10	235	1035.88	11877.98
Particulates	4.4	320.17	5.3	23.36	343.53
Sulfur Dioxide	0.8	58.21	0.8	3.53	61.74

*The BNSF conservatively estimates the average BNSF yard locomotive consumes 50,000 gallons fuel per year.
The BNSF estimate is based on a 2003 BNSF yard locomotive fuel consumption study.
The "EPA Emission Factor" data used in estimating the emissions is from EPA420-F-97-051, Table 9.
The SOx Emission Factor is based on sulphur content of fuel purchased per BNSF fuel specifications.